

Claims

1. A recording pulse generating apparatus for generating recording pulse signals having pulse widths corresponding to pits having various lengths, comprising:

first pulse generating means for generating the recording pulse signal so that an amplitude of the recording pulse signal corresponding to a pit having at least one kind of length less than a preset length changes from a first amplitude to a second amplitude lower than the first amplitude; and

second pulse generating means for generating the recording pulse signal so that an amplitude of the recording pulse signal corresponding to a pit having a length equal to or longer than the pre-set length changes from a third amplitude to a fourth amplitude lower than the third amplitude and further changes to a fifth amplitude higher than the fourth amplitude.

2. The recording pulse generating apparatus according to claim 1,

wherein the second pulse generating means generates the recording pulse signal so that the third and fifth amplitudes become equal to each other.

3. The recording pulse generating apparatus according to claim 1 or 2,

wherein the first and second pulse generating means

generates the recording pulse signals so that the first and third amplitudes become equal to each other.

4. The recording pulse generating apparatus according to any one of claims 1 to 3,

wherein the first and second pulse generating means generates the recording pulse signals so that the second and fourth amplitudes become equal to each other.

5. The recording pulse generating apparatus according to claim 1, wherein the first pulse generating means generates the recording pulse signal so that the amplitude of the recording pulse signal corresponding to one or more kinds of pits each having a length less than the preset length changes from the first amplitude to the second amplitude, and

generates the recording pulse signal so that the amplitude of the recording pulse signal corresponding to the other kind of pits having a length less than the pre-set length becomes a sixth amplitude.

6. The recording pulse generating apparatus according to claim 5,

wherein the first pulse generating means generates the recording pulse signals so that the first amplitude and the sixth amplitude become equal to each other.

7. The recording pulse generating apparatus according to claim 1,

wherein the first pulse generating means and the second pulse generating means generates the recording pulse signals so that time in which the amplitude of the recording pulse signal generated by the first pulse generating means is the first amplitude is longer than time in which the amplitude of the recording pulse signal generated by the second pulse generating means is the third amplitude.

8. An information recording apparatus comprising:

the recording pulse generating apparatus according to claim 1, and

recording means for recording the information by forming the pit using the recording pulse signal generated.